

## [ CLAIMS

1. A ceramic heater comprising a ceramic substrate and  
a heating element disposed either on the surface or internally  
5 of the substrate,

wherein the work-heating surface has a JIS B 0601 surface  
roughness of  $R_{max} = 0.05$  to  $200 \mu m$ .

2. A ceramic heater comprising a ceramic substrate and  
10 a heating element disposed either on the surface or internally  
of the substrate,

wherein said ceramic substrate contains an element other  
than its dominant constituent elements and the work-heating  
surface of the heater has a JIS B 0601 surface roughness of  $R_{max}$   
15  $= 0.2$  to  $200 \mu m$ .

3. The ceramic heater according to Claim 1 or 2  
wherein said ceramic substrate is at least one member  
selected from among a nitride ceramic, a carbide ceramic and  
20 an oxide ceramic.

4. A ceramic heater comprising a nitride ceramic  
substrate and a heating element either on the surface or  
internally of said substrate,

25 wherein said nitride ceramic substrate contains an  
element other than its principal constituent elements and the  
work-heating surface of the heater has a JIS B 0601 surface  
roughness of  $R_{max} = 0.2$  to  $200 \mu m$ .

30 5. A ceramic heater comprising a nitride ceramic  
substrate and a heating element either on the surface or  
internally of said substrate

wherein said nitride ceramic board contains at least one  
element selected from Na, B, Y, Li, Rb and Ca and a work-heating  
35 surface has a JIS B 0601 roughness value of  $R_{max} = 0.2$  to  $200$

$\mu$ m. SUB  
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5 6. The ceramic heater according to Claim 4 or 5 wherein said nitride ceramic board has the form of a disk having a diameter of more than 150 mm.

B3 7. The ceramic heater according to Claim 4, 5 or 6 wherein the content of at least one element selected from the group consisting of Y, Li, Rb and Ca is not less than 0.1 weight %.

15 8. The ceramic heater according to Claim 4, 5 or 6 wherein the content of at least one element selected from the group consisting of Na and B is not less than 0.05 ppm.

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